Transferring Excel and dBASE files to/from Oracle

There are a number of methods for transferring data between Excel, dBASE, and Oracle.

Loading Oracle tables into Excel

Oracle tables can be loaded into Oracle in two ways:

1. Through a Comma-Separated Values file.
2. Through Oracle GLUE. This is an Excel add-in that can read Oracle tables.

Oracle -> CSV -> Excel

1. Export the Oracle table as a .csv file, using sqlplus commands. Here's an example:

```
spool species.csv
set termout off
set pagesize 0
set heading off
set feedback off
select species||','||count||','|| rating from species_ratings;
quit
```

2. Transfer the .csv file from the Oracle server (usually HP Unix) to your Excel platform (PC or Mac).
3. Open the CSV file as an Excel spreadsheet.

Loading dBASE files into Oracle

Jerry Horel has written a Unix utility 'dbf2ora', which converts any old dBASE .dbf file into an Oracle table. It creates an Oracle table with the same name as the .dbf file, and the same column names and definitions. This is simple for rote replication of a dBASE table into Oracle.

If you type 'dbf2ora' at the Unix command prompt, you should get the syntax in return. The syntax is :

```
nanux1:>  dbf2ora   oracle_username   oracle_password   filename.dbf
```

you will get an Oracle table named "filename". Check the field types and widths of the new table in sql*plus with the 'DESCRIBE tablename' command after it has run.

Loading Excel files into Oracle

There are two ways to load Excel into Oracle:

1. Through a Comma-Separated Values file. This method gives more control over the Oracle table created.
2. Through a dBASE file. This method is a bit quicker, IF your data is very orderly.

Excel -> CSV -> Oracle

1. Save the Excel spreadsheet as file type 'CSV' (Comma-Separated Values).
2. Transfer the .csv file to the Oracle server (usually HP Unix).
3. Create the Oracle table, using the SQL CREATE TABLE statement to define the table's column lengths and types. Here's an example of an sqlplus 'CREATE TABLE' statement:

```
CREATE TABLE SPECIES_RATINGS
  (SPECIES VARCHAR2(10),
   COUNT NUMBER,
   RATING VARCHARC2(1));
```

4. Use sqlload to load the .csv file into the Oracle table. Create a sqlload control file like this:

```
load data
infile spec_rat.csv
replace
into table species_ratings
fields terminated by ','
(species,count,rating)
```

5. Invoke sqlload to read the .csv file into the new table, creating one row in the table for each line in the .csv file. This is done as a Unix command:

```
% sqlload userid=username/password control=<filename.ctl> log=<filename>.log
```

This will create a log file <filename>.log. Check it for loading errors.
6. Use these sqlplus commands to check the Oracle table:

```
DESCRIBE SPECIES_RATINGS;
SELECT COUNT(*) FROM SPECIES_RATINGS;
SELECT * FROM SPECIES_RATINGS WHERE ROWNUM < 6;
```

7. You're done.

Excel -> dBASE -> Oracle

dbf2ora can also be used to load an Excel spreadsheet into Oracle, by getting Excel to export it as a .dbf (dBASE) file first. This procedure is tricky, as Excel does not carry explicit data type (eg char/numeric) or format (eg column width) information on its columns. If you don't do it just right, the dBASE file will not have the appropriate column definitions, and neither will the Oracle table.

Therefore, to create a dBASE file, Excel must use some rules of thumb to make up the column definitions in dBASE :

- The first row of the spreadsheet must contain names for the column (field) names. Avoid unusual punctuation.

- The second row must start the data. DO NOT leave a blank row.
- The cells in the second row should have the character type you want. (eg, don't put alpha strings in a numeric field). If a cell in the second row contains an alpha character, Excel will create that column in dBASE as alphanumeric.
- Do not use the string "NULL" in numeric fields. "NULL" is an alpha string, so if it was in the second row of the table, it would force the column to alphanumeric. If it was in another row, it would generate an error.
- If a cell in a numeric field is empty in the second row (that is, the first data row), enter an "impossible" value , say -9999, to force the column to numeric. I would assume you would remove this -9999 value later on in Oracle. If you leave the cell blank, it will come across as character data type.

(I am not 100% sure you need to do the following column manipulations -- you could skip at first and then start over if you don't get the right field widths and number of decimal places)

- Save each column to the desired width. This will define the field width later in Oracle. Use the "Format - column width" button.
- Set the numeric columns to the desired number of decimal places with the "Format -- number -- 0.00" button.
- Set the column allignment to general with the "Format -alignment" button. Choose general (avoid centered, left or right).

After these manipulations, save the file as DBF3 (Dbase 3). The file is now ready to use in 'dbf2ora' in UNIX.

Find Code: [   ] Search **Advanced Search**

| **Home** | **New** | **Hot** | **Best** | **Forum** |
| **News** | **Jobs** | **Links** | **Newsletter** | **Submit Code** |

Export an Access Database Table or Query to Excel

Author: Anonymous
Category: Database
Type: Modules
Difficulty: Intermediate
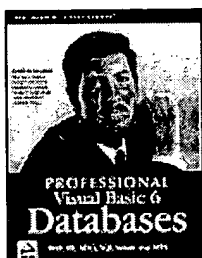
Version Compatibility: *Visual Basic 6*

More information: This short application will export a given Access database table or query into an excel sheet. The first line wich can start on at a given position will contain the fields name in bold and with a colored shape. Put the bilbio.mdb file (comes with VB) into the application directory for this code to work as written.
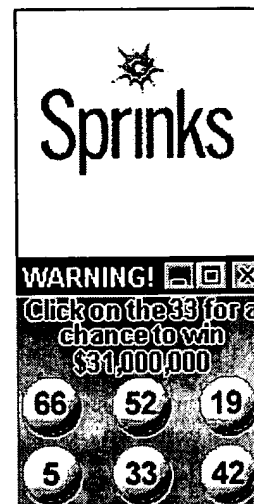
This code has been viewed **2184** times.

Instructions: Click the link below to download the code.

source/Export2XL.zip

Recommended Book:

Professional Visual Basic 6
Databases

```
VERSION 5.00
Begin VB.Form Form1
   Caption        =  "Form1"
   ClientHeight   =  1980
   ClientLeft     =  48
   ClientTop      =  228
   ClientWidth    =  4788
   LinkTopic      =  "Form1"
   ScaleHeight    =  1980
   ScaleWidth     =  4788
   StartUpPosition =  3 'Windows Default
   Begin VB.CommandButton cmdQuit
      Caption     =  "Quit"
      Height      =  372
      Left        =  2880
      TabIndex    =  2
      Top         =  360
      Width       =  972
   End
   Begin VB.CommandButton cmdRun
      Caption     =  "Run"
      Height      =  372
      Left        =  600
      TabIndex    =  0
      Top         =  360
      Width       =  972
   End
   Begin VB.Label lblExplanation
      Caption     =  $"Form1.frx":0000
      Height      =  732
      Left        =  240
      TabIndex    =  1
      Top         =  1080
      Width       =  4332
   End
End
Attribute VB_Name = "Form1"
Attribute VB_GlobalNameSpace = False
Attribute VB_Creatable = False
Attribute VB_PredeclaredId = True
Attribute VB_Exposed = False
'This program has been written by Frederic Fievez on April 22th, 2002


Private Sub cmdQuit_Click()
   End
End Sub


Private Sub cmdRun_Click()
'To use this program, copy the biblio.mdb file into the same directory than this application

Export2XL 3, ".\BIBLIO.MDB", "PUBLISHERS"

'Short explanation, you can use this module with any table or query from an Access DB
'Type Export2XL follow by the position of the first line, then the Access file, and the
'Table or Query source.
End Sub
```

Using
Excel Version 5 for Windows , Special Edition

Ron Person

ch Change In:

OK

Cancel

Function:

Help

Subtotal

Remove All

NITS

RICE

REVENUES

Replace Current Subtotals

Page Break Between Groups

Summary Below Data

Replace Current Subtotals

BSO Total

			E	F
		S PRICE	REVENUES	
		4	400	$1,600
		4	429	$1,716
		9	429	$3,861

Cost/Expe

Sales

ramer	Model D		225	
ramer	Model D	7	225	$1,575
ramer	Model J	1	795	$795
ramer	Model X	8	599	$4,792
ramer	Model	4	229	$916
ramer	Model	2	300	$600
ramer	Model			$10,253
ramer Total				
MacKenzie	Model K	8	400	$3,200
MacKenzie	Model M	3	429	$1,287
MacKenzie	Model M	6	350	$2,100

SEOREP.XLS
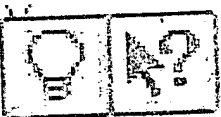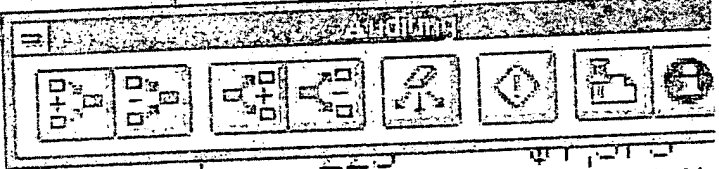
File   Edit   View   Insert   Format   Tools   Data   Window   Help

Arial   10

Using Excel Version 5 for Windows, Special Edition

97 96 95   10 9

Using Excel Version 5 for Windows, Special Edition, is based on Microsoft Excel Version 5 for Windows.

Microsoft Query from Excel with the **Data Get External Data** command, you can only transfer data to Excel by using the Microsoft Query **File Return Data to Excel** command. If you started Microsoft Query directly from Program Manager, you can use the Microsoft Query **Edit Copy** or **Edit Copy Special** command to copy data from Microsoft Query to the Windows Clipboard; you then use the **Edit Paste** or **Edit Paste Special** command in Excel or another Windows application to paste the data into that application. Pasting and linking data from other Windows applications also is described in Chapter 38.

Returning Data from Microsoft Query

To return data from Microsoft Query to Excel, you must have started Microsoft Query from Excel. When you start Microsoft Query from Excel, the **Return Data to Excel** command appears on Microsoft Query's **File** menu, and the Return Data button appears on Microsoft Query's toolbar. When you return data to Excel, all the data in the data pane goes to your Excel worksheet. Returning data to Excel doesn't close Microsoft Query.

> **Note**
>
> When you return data to Excel, the data inserted in your worksheet is a *copy* of the data retrieved by Microsoft Query. You must update the information in the worksheet manually (or execute the query and return the data again) to have the data in the worksheet reflect changes in the source data that occur after the first time you return data to Excel from that particular database.

When you return data to Excel, all the data in the data pane is copied to your worksheet; you do not need to select any data in the data pane before returning the data to Excel. To return data to Excel, follow these steps:

1. Choose the **File Return Data to Excel** command, or click the Return Data button on the toolbar. Excel displays the Get External Data dialog box (see fig. 35.13).

Fig. 35.13
Use the Get External Data dialog box to return data to Excel.

---
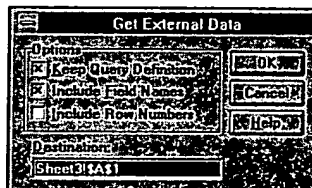
2. Enter the
   corner of
   change t
   current l

3. Select an

   Ke

   Inc

   In

4. Choose
   workshe

Caution

If you have t
data returne
more columr
ered by the l
empty works

The area on t
Microsoft Qu
Destination t
corner of the

Pasting or L

You can only
rectly from P
started Micro

When you p
tion) into Ex
into Excel as
same effect a

2. Enter the Excel sheet name and cell coordinates for the upper-left corner of the returned data in the **D**estination text box. If you don't change the location, the result set is inserted in the worksheet at the current location.

3. Select among the following options:

Keep Query Definition	Select this check box to keep the query that you used to create the result set that you are inserting. The query information is stored in the Excel worksheet.
Include Field Names	Select to include the field names in the Excel worksheet as column headings for the data.
Include Row Numbers	Select to include row numbers.

4. Choose OK. Excel inserts the data from Microsoft Query into the worksheet.

Caution

If you have text labels or cell formulas at the bottom or right side of the area filled by data returned from Microsoft Query, and you change the query so that it returns more columns or rows, the returned data overwrites the formulas or text labels covered by the larger returned data set. To avoid this problem, return the data to an empty worksheet, and then copy or move it to its final location.

The area on the worksheet that contains the data pasted (returned) from Microsoft Query is called a *data range*. The worksheet cell specified in the **D**estination text box of the Get External Data dialog box is the upper-left corner of the data range.

Pasting or Linking Data from Microsoft Query

You can only paste or link data to Excel if you started Microsoft Query directly from Program Manager. You cannot perform these operations if you started Microsoft Query with Excel's **D**ata Get External Data command.

When you paste data from Microsoft Query (or any other Windows application) into Excel, you have two options. First, you can simply paste the data into Excel as a copy of the data in the original source. This has essentially the same effect as returning data to Excel, as described in the preceding section.

If the source data changes, the data in your Excel worksheet does not change; you must manually update the information by copying it from the source and pasting it into Excel again.

The second option links the data from the source application (Microsoft Query, in this case) to the Excel worksheet. After you link data to your Excel worksheet, you can automatically update the information if the source data changes. Updating linked or embedded information is described in Chapter 38.

Pasting Data. Pasting data into Excel manually has one minor advantage over returning data to Excel. By using the copy-and-paste method described here, you can transfer single fields or parts of a single field to your worksheet. When you return data to Excel (as described earlier in this section), all the data in Microsoft Query's data pane is copied to Excel.

To paste data into an Excel worksheet from Microsoft Query, follow these steps:

1. Select the information (records, fields, or part of a field) you want to place into the worksheet from the data pane in Microsoft Query. Use any of the selection methods described earlier in this chapter.

2. Choose the Edit Copy command or the Edit Copy Special command. Use the Edit Copy Special command if you want to include column headings or row numbers in the information you are copying.

   Microsoft Query copies the selected information to the Windows Clipboard.

3. Use the Windows Task Manager to make Excel the current application. (Refer to your Windows documentation for information on the Task Manager.)

4. Make current the worksheet cell that you want to be the upper-left corner of the data range that you paste into Excel.

5. Choose the Edit Paste command. Excel pastes the information from the Windows Clipboard into your worksheet.

Remember that the information you insert into a worksheet this way is just a copy of the information in the source application. You must repeat this copy-and-paste operation to update the information in your worksheet.

Linking Da

into Excel,
DDE or OL
DDE and O

To link dat:

1. Selec
   data
   descri

2. Choo
   Use tl
   headi:

   Micrc
   Clipb

3. Use tl
   or pre

4. Make
   corne

5. Choo
   cial d:

6. To lin
   Paste
   using

7. Choo:

To update t.
ter 38 for m:

Note

If you inse
procedure
Microsoft (

Linking Data. Linking data to Excel is essentially the same as pasting data into Excel, except that Excel records the origin of the data, and can use the DDE or OLE link to update the information in your worksheet. Updating DDE and OLE links is described in Chapter 38.

To link data to an Excel worksheet from Microsoft Query, follow these steps:

1. Select the information you want to place in the worksheet from the data pane in Microsoft Query. Use any of the selection methods described earlier in this chapter.

2. Choose the **Edit Copy** command or the **Edit Copy Special** command. Use the Edit Copy Special command if you want to include column headings or row numbers in the information you are linking.

   Microsoft Query copies the selected information to the Windows Clipboard.

3. Use the Windows Task Manager to make Excel the current application, or press Alt+Tab until Excel becomes the current application.

4. Make current the worksheet cell that you want to be the upper-left corner of the data range that you link to Excel.

5. Choose the **Edit Paste Special** command. Excel displays the Paste Special dialog box.

6. To link the data to your worksheet, choose the Paste **Link** option in the Paste Special dialog box. (The **Paste** option produces the same effect as using the **Edit Paste** command described previously.)

7. Choose OK. Excel inserts the linked information into your worksheet.

To update the linked information, use the **Edit Links** command. See Chapter 38 for more information on updating links.

Note

If you insert data from Microsoft Query into your Excel worksheet using the linking procedure described here, remember that the link you are creating is a link to Microsoft Query, *not* a link to the original data source.

from an Excel worksheet file. WordPerfect however, does not currently have a file converter for version 5 of Excel, so you need to save your Excel documents in Excel 4 format, if you plan to read them into WordPerfect.

To import Excel data into a WordPerfect 6 file, complete the following steps:

1. Save your Excel data in Excel 4 worksheet format using the steps detailed in the previous section, "Saving Excel Worksheets in a Different Format."

> **Note**
>
> WordPerfect 6 imports several spreadsheet file formats that Excel exports, including Excel 2.1, 3.0, and 4.0, and Lotus 1-2-3, versions 1.0 through 3.1.

2. Switch to WordPerfect, if it is already running; otherwise, start it now. (Refer to Chapter 2 for information on switching between applications.)

3. Open the WordPerfect file in which you want to use the Excel data, if it is not already open, and then position the cursor where you want the Excel data to appear.

4. Choose the **T**ools command, or press Alt+F7; then choose **S**preadsheet Import.

Tip
You can use WordPerfect's File List or QuickList to find the file you need.

5. Choose Filename, type the full path name, and then press Enter.

6. Choose the **R**ange command, and enter the data range or range name. If you don't specify a data range or range name, the entire worksheet is imported.

7. Choose the **T**ype command, and select Import as Table or Import as Text. You may need to reformat fonts and columns in tables to fit the data on the page.

Tip
To preserve Excel's mathematical functions so that WordPerfect can recalculate the data if you make changes, choose the Import as Table command.

> **Caution**
>
> Some mathematical functions in Excel may not translate into WordPerfect, so check the results carefully.

8. Choose the **I**mport command.

WordPerfect inserts the data.

Newer Macintosh computers are capable of reading and writing Windows'
Excel files directly from an MS-DOS disk. For older Macintosh computers, you
need to transfer the data between computers. A transfer between computers is
performed with a null-modem serial cable (a non-normal serial cable) and a
Macintosh-to-PC communication application. A number of good applications
can accomplish such a transfer.

Exporting Files to Macintosh Excel

If you are transferring between Macintosh and Windows versions of Excel 5,
you do not need to convert the file. If one computer uses Excel 3 or 4 and the
other Excel 5, you need to save files to the older version before transferring. If
the Macintosh version is earlier than Excel 3, you need conversion software,
which usually comes with the file transfer software.

Tip
If dates are four
years off after
importing from or
exporting to a
Macintosh Excel
worksheet, change
Excel's date.

**For Related
Information**
■ "Saving Work-
books," p. 272

Importing Data

Excel is used by many businesses to analyze data stored in other applications.
If you want to automate your system or create links between Excel and a
database, you should explore the use of Microsoft Query and Excel (see Chap-
ter 35, "Linking Excel to External Databases"). Many other Windows applica-
tions can link Excel to network servers and mainframe databases.

Opening Files Saved in Another File Format
The easiest way to import data into Excel is to import the data directly
through one of the many file formats that Excel can read, and then resave the
data in Excel 5 format. The file formats that Excel can read are listed in table
39.1, earlier in this chapter.

To open a non-Excel file, follow these steps:

1. Choose the File Open command. Excel displays the standard File Open
   dialog box.

2. Select the file format for the type of file you want to import in the List
   Files of Type drop-down list box.

3. Select the file you want to import in the File Name list box. Locate the
   file using the Directories and Drives lists to switch the directory and
   drive, if necessary.

4. Choose the OK button. Excel imports the file.

VI

Integrating Excel

When Excel loads a non-Excel file, Excel remembers the format in which the file came. When you save the file, Excel displays the Save As dialog box. To save the file in the original non-Excel format, choose the OK button; Excel asks you to confirm replacing the original file.

Usually, however, you will want to save the file in Excel 5 workbook format. To save the file as an Excel 5 workbook, choose Microsoft Excel Workbook in the Save File as Type drop-down list box. If you close a non-Excel file that you have made changes in, Excel asks if you want to save changes before closing the file and reminds you that the file is not in Excel 5 format. Choose the Yes button to save changes; Excel displays the Save As dialog box. Follow the procedure described in the preceding paragraph to save the file in the original non-Excel format or as an Excel workbook.

Caution

Saving to a non-Excel format can result in the loss of formulas, functions, special features, and formatting that are unique to Excel.

Note

If you need to selectively read information from an Excel, dBASE, Access, or Paradox file, or from another file laid out in row and column format, or in a database table, you may want to use Microsoft Query. Using Microsoft Query, you can selectively extract information from a large file on disk without importing the entire file. Microsoft Query is described in Chapter 35, "Retrieving Data from External Databases." Microsoft Query comes with Excel.

Importing Data from Mainframe Computers

If the database management system (DBMS) of the mainframe from which you want to import data supports Structured Query Language (SQL) and is connected to your computer through a network, you should be able to use Microsoft Query to retrieve data easily and quickly from the mainframe database. Microsoft Query is capable of accessing data in a variety of mainframe and personal computer database formats. Refer to Chapter 35, "Retrieving Data from External Databases," for more information on using Microsoft Query and Excel to retrieve data from external databases.

If you want t
your comput
mat that Mic
text file to im

Many corpor
Formatted Te
characters lor
the section, "
later in this c

Importing Te
Use text files t
Most applicat
text file is laid
frame applica
headings ASC

Excel imports
matted text). I
formats into c
Each comma-
own cell. You
are importing.

To see the CSV
worksheet with
Save As comm
or CSV format
Choose the OF
to examine the
data. When yo
tabs, and quote

The third type
length text file.
line of text. Fo
names from pc
space character
Choose the Da

If you want to access data from a mainframe database that is not available to your computer through a network, or if the mainframe database uses a format that Microsoft Query cannot read, then you must use an intermediary text file to import the data into Excel.

Many corporations download text files from their mainframes into Text, Formatted Text, or CSV format. Excel can *parse* (separate) text lines up to 255 characters long into individual cells in the worksheet. Parsing is described in the section, "Separating (Parsing) Text into Columns with the Text Wizard," later in this chapter.

Importing Text Files with the Convert Text Import Wizard

Use text files to pass data when Excel cannot read an applications file format. Most applications can save or print data to a text file, and specify how the text file is laid out. For information on performing this task in DOS or mainframe applications, check the index of your application's manual under the headings *ASCII, ANSI, report generator, text file,* or *printing to disk.*

Excel imports three types of text files: CSV, text, and column-delimited (formatted text). Excel automatically separates data fields from CSV and Text formats into cells. Each row of imported data is placed into an Excel row. Each comma-separated or tab-separated segment of data appears in its own cell. You can specify the type of delimiter used in the text file you are importing.

To see the CSV or Text format that Excel reads automatically, create an Excel worksheet with sample data in cells. To save that worksheet, choose the **File Save As** command, drop down the Save File as **Type** list, and select the Text or CSV format of the character set you need (ANSI, ASCII, or Macintosh). Choose the OK button. Then use Windows Write or another word processor to examine that file and see how commas, quotes, or tabs are placed around data. When you create a text or CSV file for import to Excel, use commas, tabs, and quotes in the same way.

The third type of text file Excel reads is known as a *column-delimited* or *fixed-length* text file. Each data field is assigned to specific character locations in a line of text. For example, first names may be stored from position 1 to 12, last names from position 13 to 25, and so on. Unused positions are filled with space characters so that all of the data lines up in columns of a fixed width. Choose the **Data Text** to Columns command to separate lines of data into

VI

Integrating Excel

Using

MICROSOFT®

Excel 97

Special Edition

Bestseller Edition

que®

Special Edition Using Microsoft® Excel 97, Bestseller Edition

Co

I

II

III

IV

V

Using the Query Wizard

Before you can use the Query Wizard, you may have to install Microsoft Query on your computer. First, check to see if the program is there. In Excel, choose Data, Get External Data, Create New Query. If Microsoft Query has not been installed, you will see a message like the one in Figure 16.1.

FIG. 16.1
Microsoft Query has not been installed.
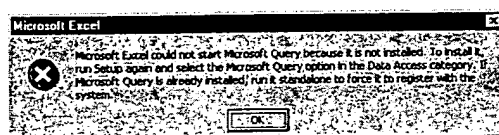
Installing Microsoft Query

Install the Query program by following these steps:

1. Close all programs that are currently running on your computer.

2. Using the CD-ROM or disks that you used to install Excel (this would be the Microsoft Office 97 CD-ROM if you installed the entire Office package), run the Setup program.

3. In the Options list, make sure Data Access is checked. Do not uncheck any items. Click Data Access, then click the Change Option button.

4. Click Database Drivers, then click the Change Option button.

5. Indicate the drivers you want to install. Your choice will correspond with the database programs you will be using. See Table 16.1 for a list of compatible database programs and formats.

6. Click Continue. The setup program will install Microsoft Query to your hard drive.

CAUTION
When installing Microsoft Query, do *not* uncheck any items in the Options list of your setup screen. This will uninstall those items, which you don't want to do!

Table 16.1 Choosing a Database Driver

Driver Choices	What the Driver Does
Microsoft Access	Reads files with .mdb extension
dBase	Reads files with .dbf extension
Microsoft FoxPro	Reads files with .dbf extension
Microsoft SQL Server	The driver used to query data
Text and HTML	Reads files with extensions such as .txt, .csv, .asc, and .tab

Preparing to Query a Database

A small amount of advance preparation will save you time when you get ready to import information from an external database. Take a few minutes to perform these tasks before you use Microsoft Query:

- ☒ Know the file name and location of the file containing your database.
- ☒ Determine the exact elements that should be contained in the data you extract.

Selecting a Data Source

Before launching the Query Wizard you must identify the source of the data you want to extract. In other words, you tell Excel where to find the database from which the data will be chosen and what kind of driver will be needed in order to read information in that database. To identify a data source in Excel, follow these steps:

1. Choose Data, Get External Data, Create New Query. The Choose Data Source dialog box appears (see Figure 16.2).

   If you have used this feature previously, there may be some data selections from which you may choose listed in the box, or you can choose to create a new data source. Click your choice, make sure the Use Query Wizard box is checked, and then click OK.

FIG. 16.2
Opening this window enables you to indicate the location of your data.
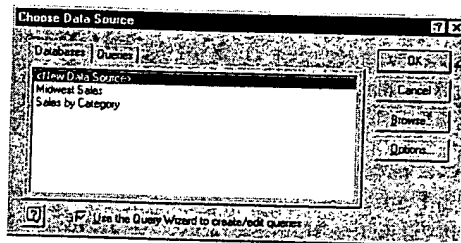
2. In the Create New Data Source window that appears, you are asked for four pieces of information:

   - *What name do you want to give your data source?* The name you choose for your data source will help you identify this source if you want to use it in the future.
   - *Select a driver for the type of database you want to access.* From the drop-down list provided, choose the driver that fits your type of database.
   - *Provide information appropriate to the database you have chosen.* Then click the Connect button and answer the on-screen questions.
   - *Select a default table for your data source.* The drop-down list gives you a choice of the tables associated with your data source. The table you choose will be the first one presented to you when you are ready to begin choosing fields for your query. This step is optional. Choosing a default table does not limit the fields available to you when creating your query.

3. When you finish entering the information requested in the Create New Data Source dialog box, click OK. The Choose Data Source dialog box reappears.
4. With your new data source selected, click OK. Excel starts the Query Wizard.

Choosing Tables and Fields

On the left side of the Query Wizard window is a list of the tables in your database. If you chose a default table with your data source, that table will appear first. Tables are marked with a plus sign on the left indicating multiple fields within the table. Clicking the plus sign expands the list to display the fields beneath the table name. Clicking the resulting minus sign compresses the list of fields.

You can choose fields for your database using any of the following techniques:

■ Click a field name on the left side of the Query Wizard box and click the Add Field button (the first arrow button between the two lists) to add the specific field to your list of fields to query.

■ Click a table name and click the Add Field button to add all the fields from the selected table to your list of fields to query.

■ If you place a field in your query list and you decide later that you don't want to use it, click the field name in the query list, and then click the Remove Field button (the second arrow button between the two lists) to send the field back to the list on the left.

■ To remove all fields from the query list, click the Remove All Fields button (the third arrow button between the two lists).

When you finish selecting fields for your query, click the Next button to begin filtering your data. If there is no obvious connection between the fields you have chosen to query, you will see a message like the one in Figure 16.3. Clicking OK in this box will take you completely out of the Query Wizard and will cause the Microsoft Query program to open. (Defining the connection between fields using Microsoft Query is covered in Chapter 17.) Clicking Cancel returns you to the Query Wizard, where you can alter your field selection.

FIG 16.3
This message appears when the Query Wizard is unable to find a connection between the fields you have chosen to query.

Click here to return to the Query Wizard and change the list of fields you want to query
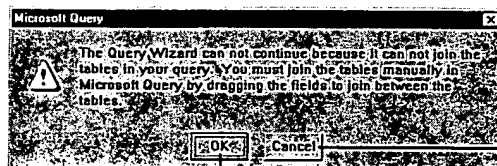
Click here to open Microsoft Query and manually define the connection between the fields you have chosen